



Conservation Compass

Joplin Area Outreach & Education



June
July
August
2010



Fireflies!!

I remember heavy summer air and running barefoot through my grandma's pasture. My cousins held canning jars with holes poked in the lids and squealed with delight when a lightning bug was captured. All the adults were sitting on the patio and grandma called us in because the homemade ice cream was done. Kids went flying towards the house in a swirl of glittering lights. We showed off our jars and counted the fireflies before turning them loose. I distinctly recall the scene and feeling like my grandma's yard was magical. Childhood is tinged with such memories.

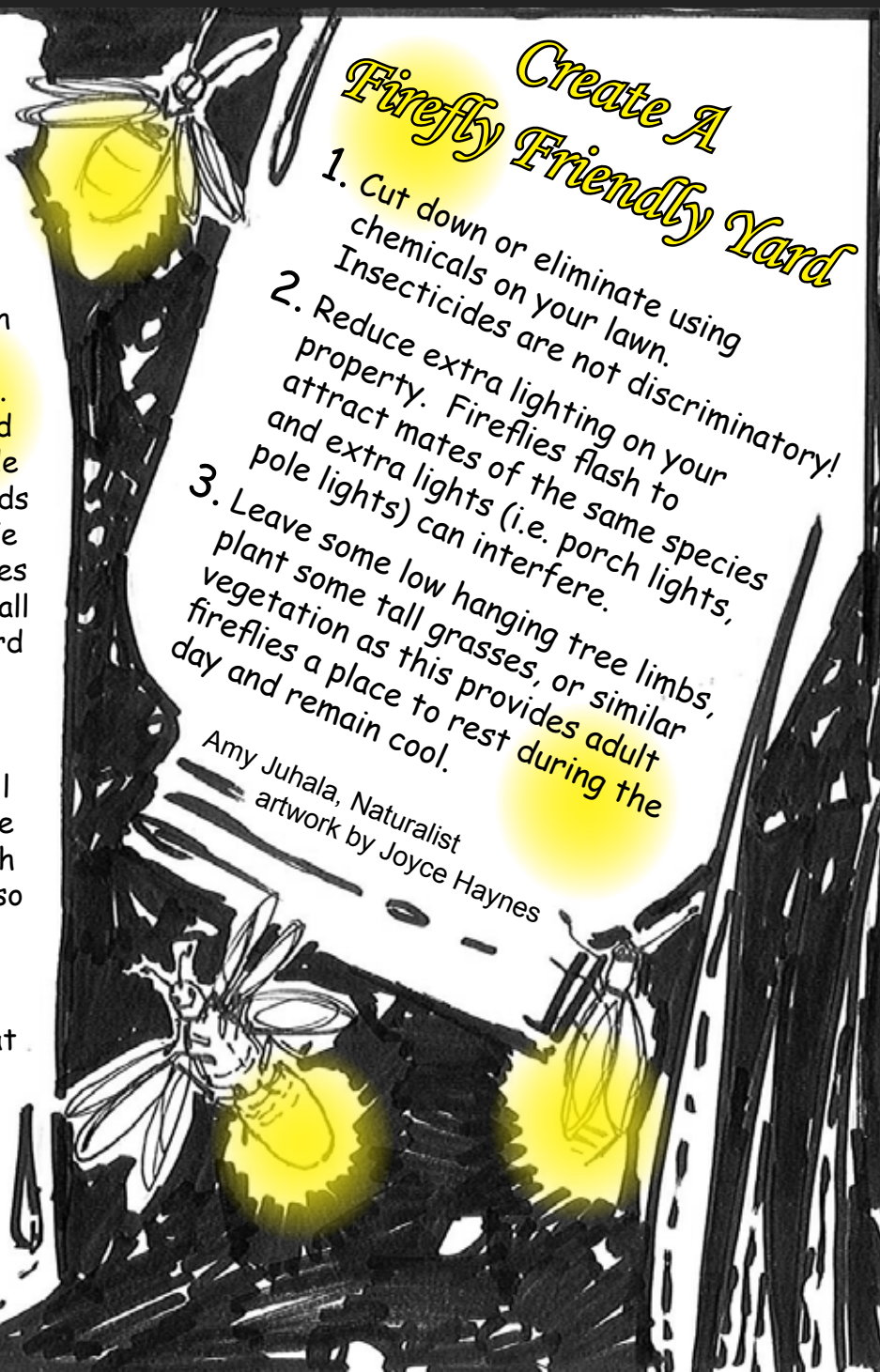
These "magical" little beetles are found throughout the world and children from all over have these same memories. But there are fewer fireflies around for kids to catch these days. Create a firefly friendly yard so your kids and grandkids can make their own memories.

To learn more about fireflies in Missouri, join us on Friday, June 25th, 8 - 9:30 pm at Walter Woods Conservation Area for our **FIREFLY FUN PROGRAM** (registration is required). Create some magical summer moments with your family!

Create A Firefly Friendly Yard

1. Cut down or eliminate using chemicals on your lawn. Insecticides are not discriminatory!
2. Reduce extra lighting on your property. Fireflies flash to attract mates of the same species and extra lights (i.e. porch lights, pole lights) can interfere.
3. Leave some low hanging tree limbs, plant some tall grasses, or similar vegetation as this provides adult fireflies a place to rest during the day and remain cool.

Amy Juhala, Naturalist
artwork by Joyce Haynes



Badger's Burrow

What's That Bug?



Kevin Badgley
Community Outreach
Specialist
Kevin.Badgley@mdc.mo.gov

"This has to be the biggest mosquito ever!", the young woman shrieked as she excitedly flailed a small container about; inside was a partially scrambled bug attempting to escape the tiny glass jar. This is a common occurrence at our office, people bringing in assorted containers full of common and some not so common critters from yards, ponds, forests, or streams. Some already have been positively misidentified as "villains" while others are brought in by folks seeking information on their discovery. In this particular case the critter inside the container had long, spindly, legs that seemed to fill up the entire baby food jar as large clear wings moved about against the sides of the jar. The legs and wings led to a thin, slender, body almost two inches long with a distinct V-shaped suture across the thorax. These characteristics

easily led to identifying this "huge flying mosquitoes" true identity of another common yard insect, the crane fly. Adult crane flies are harmless, however when adults emerge they can be in large numbers (possibly with thousands resting on the side of a house or outbuilding) and this can be unnerving to many folks. Crane flies have a short life span as adults typically live only a couple weeks and rarely do they eat, but may feed on plant nectar.

Crane flies, like all insects, play an important role in nature. The crane fly is food to birds, spiders, other insects, fish, frogs, and other animals. The larvae decompose matter in aquatic and semi-aquatic environments, and can be used as fishing bait. Some artificial lures are even made to resemble crane fly larvae.

Now is a great time to check out insects and other critters around the house, in the yard, park, or where ever you may roam. There are several conservation staff programs this summer to discover insects with a naturalist, be sure to check out the calendar of events. More information, downloadable brochures and other regional events can be found on our website:

www.mdc.mo.gov Hope to see you outdoors!



Why is the cave program canceled this summer?

This spring the Missouri Department of Conservation (MDC) confirmed MO's first signs of a new disease in bats that scientists have named "White-Nose Syndrome" (WNS). The name describes a white fungus typically found on the faces and wings of infected bats. "The WNS fungus appears to spread mainly through bat-to-bat contact and has not been found to infect humans or other animals," explained MDC Cave Biologist Bill Elliott. The disease causes infected bats to awaken more often during their winter hibernation and fly outside in search of insects to eat. This activity uses up stored fat reserves needed to get them through the winter, and they usually freeze or starve to death. According to Bat Conservation International (BCI), a leading authority on bat conservation, education and research, WNS has killed more than a million bats in 11 states and Canada since 2006.

Due to the threat of this species, MDC is canceling all cave programs (both MDC lead and on Conservation land) until further notice. As always we ask the public to not handle bats and contact the MDC office nearest you if you find dead bats with white, fuzzy fungal growth or if you see bats flying in the winter. If you would like to learn more about Missouri bats, WNS, and caves join us on Saturday, July 17th, 6 - 7:30 pm, for **Bats, Caves and WNS**. The program will be for all ages, held at Walter Woods Conservation Area and registration is required. For more information or to register call 417-629-3423.



The **WILD** Side of Cooking

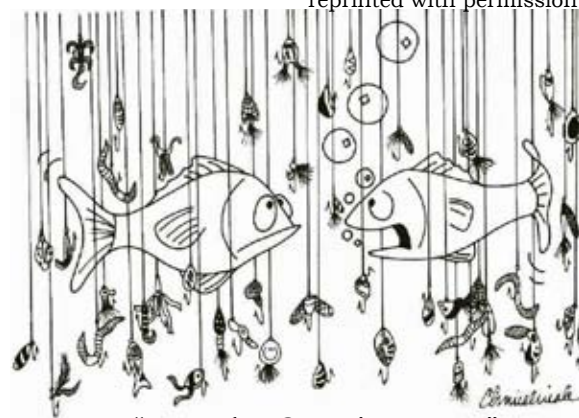
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Homemade Fish Sticks

Cy Littlebee's Guide to Cooking Fish & Game

Ingredients:

1 cup yellow cornmeal	1 egg
Salt and pepper to taste	1 cup flour
About 2 pounds of fish	



"Must be Opening Day."

Mix dry ingredients together. Clean fish your usual way, remove bones if you can or fillet your fish. Cut up fish crosswise about $1\frac{1}{2}$ to 2 inches thick. Take each piece and dip into beaten egg then roll into cornmeal mixture. Fry in hot frypan. An iron frypan is one of the best I've found to fry fish in. Have enough shortening in frypan as fish requires quite a bit.



Ask the Naturalist

by Diana Steele

Q: Our grandkids will be visiting for a couple of weeks this summer. How can we get them outside?

A: This is a wonderful chance to make some unforgettable memories and a great opportunity to turn those grandkids into young naturalists. Just remember when you were a kid, and how much you enjoyed your time outside. Fun was made in the daylight by exploring for lizards, butterflies, and

June bugs or late at night with nothing but the back porch light to seek out night critters. We didn't need an iPod, we had crickets, toads, and frogs as our background music. The family entertainment of the evening was running in the cool, fresh-cut grass, chasing, and catching the ever elusive lightning bug. These are the memories that will last throughout their lifetime and something they can share with their children.

It is up to us as parents and grandparents to help guide our youth in finding the joy (without electronics) that so many of us as kids had outdoors. So, turn off the television and the cell phone, step outside, and even turn off the back porch light, and begin to teach your children in the "wild" classroom. Work on the art of listening and communicating not only with nature but with each other; it's available to parents every day and it's free! The Joplin Conservation Office offers many family programs, so be sure to check out the summer schedule of free events.

Enjoy your summer nights!



Summer Events



Missouri Department of Conservation Joplin Office Program Registration

All programs are FREE and **require registration**; please contact the Joplin Conservation Office at **(417) 629-3423** to register. If you are unable to attend a program, please call to cancel so someone on the waiting list may attend.



June

5 Saturday, 8 am – noon, 9th Annual Kid's Fishing Day, Ages 15 and under, Kellogg Lake, Carthage
See back page of the Conservation Compass for details! No registration required!

10-12 Thursday – Saturday, Joplin Boomtown Days, All Ages, Landreth Park, Joplin
Visit our booth and participate in the free kids activities!

12-13 Saturday – Sunday, Free Fishing Weekend, All Ages, Statewide
No fishing licence required in Missouri this weekend!

17 Thursday, 5:30 – 8 pm, Camping 101, Discover Nature Families, Walter Woods CA
Are you a first time camper this summer? Come learn how to pitch a tent, build a fire, cook a meal, and more!

22 Tuesday, 5:30 – 7:30 pm, Prairie Hike, Discover Nature Families, Diamond Grove Prairie CA

25 Friday, 8 – 9:30 pm, Firefly Fun, All Ages, Walter Woods Conservation Area
Spend a hot summer evening catching lightning bugs with us! We'll learn all about this bright beetle and its habits. Stories, crafts, and a firefly search on the lawn will complete the evening. Bring a friend and a collection jar!



July

2 Friday, 10 am – noon, Butterfly ID Hike, All Ages, Diamond Grove Prairie Conservation Area
Where you find wildflowers, you're sure to find butterflies! Come learn how to ID these colorful insects.

7-10 Wednesday – Saturday, Newton County Fair, All Ages, Newton County Fair Grounds near Crowder
Check out our booth and talk with your local conservation employees!

15 Thursday, 6 – 7:30 pm, Introduction to Canoeing, All Ages, Kellogg Lake Park, Carthage

16 Friday, 6 – 7:30 pm, Bats, Caves and WNS, All Ages, Walter Woods Conservation Area
What's threatening Missouri's bat populations and why are caves being closed this summer?

17 Saturday, 12:30 – 3 pm, Caving Adventure, Adults and children ages 7 and up, Crystal Cave in Cassville
Bring a flashlight and a friend as we explore the underground world of Crystal Cave. This will be a moderately strenuous tour, walking along uneven paths. Please register early as space is limited.

20 Tuesday, 6 – 8 pm, Introduction to Archery Program, Discover Nature Families ages 7 and up, Walter Woods Conservation Area

22 Thursday, 9 am – 4 pm, Incredible Insects, Educators, Walter Woods Conservation Area
Educators join us for a non-credit workshop on our six-legged friends. The class will target youth leaders, teachers, and homeschool parents and will include a digital camera hunt, using classroom pets, and cross-curricular studies.

22 Thursday, 8:30 – 9:30 pm, Insect Night Hike, All Ages, Walter Woods Conservation Area
Pittsburg State University's Dr. David Gordon joins us for a night time look at insects. We will hike the trails and check out blacklight traps for these interesting and beautiful creatures.

24 Saturday, 1 – 4 pm, Introduction to Canoeing, Discover Nature Women, Women and girls ages 10 and up, Shoal Creek Missouri has over 57,000 miles of floatable streams! Let's launch our boats and learn the skills you need to plan your own float trip.

30 Friday, 7:30 – 9 pm, Evening Prairie Stroll, Discover Nature Families, Prairie State Park
Enjoy the beauty and diversity of the prairie on a evening hike.



August

6 Friday, 6 – 7 pm, Mountain Lions in Missouri, All Ages, Wildcat Glades Conservation & Audubon Center
MDC's Rex Martensen will dispel the myths of these big cats and talk about their impact on our area.

12 Thursday, 6 – 8 pm, Bug In A Box, Discover Nature Families, Wildcat Glades Conservation & Audubon Center

What do you get when you cross map reading with treasure hunting? Why, letterboxing of course! After a short introduction, your family will hit the trails in search of insect letterboxes. Dress to hunt both off and on the trails.

21 Saturday, whistle blows at 7 am, Kid's Fishing Day, Roaring River State Park No registration required.

28 Saturday, 9 am – 4 pm, Growing Up Wild Workshop, Educators in private or public schools, daycare or Head Start centers of children ages 3-7, Walter Woods Conservation Area

This workshop is designed to help educators engage young children in outdoor exploration and helps develop positive impressions about the natural world. **Cost: \$12 for book.**





Keeping All The Pieces Is The Key To A Healthy Habitat



Jeff Cantrell, Education Consultant, Jeff.Cantrell@mdc.mo.gov

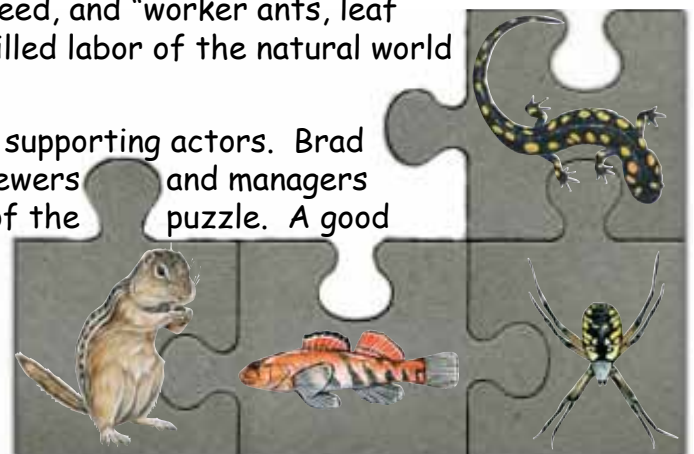
I think we are all familiar with certain school clubs, organizations, even work places of our past or present in our life where we could say "the workers behind the scenes make this place run". Occasionally in those examples the club president, the boss behind the desk etc. are the ones who get the glory but the day the secretary is sick or the "Let's Do it!" guy is on vacation and things just don't run as smooth. Where would actors Meryl Streep or Brad Pitt be without a top-notch film editor, camera person or the grip (I always wondered about the grip)?

Our ecosystems are the exact same way. In the ecology world we throw around the term "keystone species" and while all species are important, some are more relied upon than others. Like pieces of a puzzle, biologists and wildlife managers know too well the importance of keeping all the native pieces in the system. The keystone species is the organism that so much other life depends, they are critical for the ecosystem to function. The concept is related to the role of the keystone in an arch. It may be under the least amount of pressure, but if it is removed the building blocks tumble to the ground.

Well known examples of keystone species are prairie dogs of the short grass prairies west of Missouri, the salmon in the Pacific Northwest, krill of the ocean deep and the beaver, our true engineer of the wetlands.

Some keystones get more attention than others, some are misunderstood and probably most are overlooked by the majority of us. The most important players are not the stars but the supporting cast... those little grubby, crawling, flying critters of the tame and wild landscapes. The sheer biomass of insects is mind boggling, and experts estimate that for every pound of humans on earth there are 30 pounds of insects. Bees alone are second to beetles in vast numbers of species on earth and there are more species of bees than birds and mammals combined. The value of the pollination, foundation of foodwebs, decomposition, and pest control is staggering. A recent Cornell study described a low estimate of \$57 billion in insect services to the US economy annually. So "worker bees" indeed, and "worker ants, leaf hoppers, wooly worms and toadbugs" are all the skilled labor of the natural world that we simply can't do without.

Stars come in all shapes and sizes, keystone and supporting actors. Brad and Meryl, please share that marquee. Wildlife viewers and managers alike need to appreciate all the six-legged pieces of the puzzle. A good moral to this column is... give your secretary a flower, stay for the movie credits to see who the key grip is, and appreciate all Missouri's native wildlife. Pound for pound they are all important pieces to the nature's puzzle masterpiece.





conservation Kids

Cyndi Cogbill, Cyndi.Cogbill@mdc.mo.gov

Most bees are hairy, but they shouldn't be scary! We have at least 450 bee species in Missouri to pollinate flowers. If you are careful and make no sudden movements, you can safely watch bees. Try using a pair of close-focusing binoculars and observe bees from a distance. Look for bees in a variety of colors from yellow and black to metallic green. You might see bees with short tongues at flat flowers. Look for longer-tongued bees at deeper tubular flowers. You can also spot bees so heavy with pollen that they can hardly fly!

Honey Bee

WHO - medium-sized bee with black and yellow striped abdomen

JOB - pollinates flowers and provides honey

WOW - Missouri state insect, but not native to the U.S., first brought here in 1622



Bumble Bee

WHO - a large bee with hairy black and yellow abdomen

JOB - important pollinator, some large flowers only pollinated by this bee

WOW - only the queen overwinters



Carpenter Bee

WHO - chunky like a bumble bee but with a shiny black abdomen

JOB - feed on pollen and nectar, uses jaws to burrow in wood to lay eggs

WOW - males don't have stingers and females don't normally sting



Leafcutter Bee

WHO - long-tongued, dark bee with whitish hairs on the abdomen

JOB - pollinates, and cuts leaves and flowers for their nests

WOW - only carries pollen on underside of abdomen, not on hind legs



David Gordon

Digger Bee

WHO - this medium-sized bee looks like a honey bee with dark wings

JOB - pollinates Echinacea (coneflowers)

WOW - found only on prairies and glades and digs nests underground to lay her eggs



Mike Arduser

Check out related Missouri Conservation Frontiers activities: 32. Insect Collection, 53. Beekeeping, and 71. Butterfly Gardening (good for bees, too).

Explore these resources for more information about bees:
 "Show Me Bugs" book from Missouri Department of Conservation
 "Common Missouri Wasps and Bees" free pamphlet available at the Joplin office

<http://mo.gov/nathis/insects/mowasp/species.htm>

<http://mdc.mo.gov/conmag/2001/17/20.htm>

<http://www.attra.org/attra-pub/nativebee.html>





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Joplin Outreach & Education
Missouri Department of Conservation
201 W. Riviera Dr., Suite B
Joplin, MO 64804
Phone: 417-629-3423

Fax: 417-629-3426

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9TH ANNUAL KID'S FISHING DAY

Kellogg Lake, Carthage

Saturday, June 5th

Time: 8:00 am - Noon

For ages 15 and under... Bring your fishing gear and sunscreen to enjoy a fun-filled day that includes the following:

- * Conservation Education Stations featuring Missouri's fish, forests, and wildlife!
- * Drawings for prizes!
- * Free hotdogs, snacks, and drinks!

